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10/667,909	09/22/2003	**Richard F. Murphy**	1001.1530101	9920

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte RICHARD F. MURPHY

Appeal 2009-002024
Application 10/667,909
Technology Center 3700

Decided:[1] June 16, 2009

Before DONALD E. ADAMS, ERIC GRIMES, and LORA M. GREEN, *Administrative Patent Judges*.

GRIMES, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a medical device including a reinforcing member. The Examiner has rejected the

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

claims as anticipated and obvious. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

The Specification discloses "reinforcing members for medical devices having a modified surface" (Spec. 1: 6). One embodiment "includes treating at least the portion of the surface of one or more structural elements used to create the reinforcing member to provide increased surface area, or to provide a roughened or textured surface on at least a portion of the finished reinforcing member" (*id.* at 1: 22-26). The Specification discloses that the modified surface can provide "better connection between the reinforcing member and other components of the medical device" (Spec. 1: 19-28).

Claims 41-56 are on appeal.[2] Claim 41 is representative and reads as follows:

Claim 41: A medical device including a reinforcing member, the medical device formed by the following process:

providing one or more metallic filaments adapted and configured to be made into the reinforcing member for the medical device, the one or more metallic filaments including a metallic surface having a portion with an initial surface area;

treating at least the portion of the surface of the one or more metallic filaments to provide a final surface area that is greater than the initial surface area;

creating the reinforcing member using the one or more metallic filaments; and incorporating the reinforcing member into the construction of the medical device.

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[2] Claims 1-40 are also pending but have been withdrawn from consideration by the Examiner (Office action mailed May 18, 2007, page 1).

The claims stand rejected as follows:

• claim 41 under 35 U.S.C. § 102(b) as being anticipated by Cohen;[3] and

• claims 41-56 under 35 U.S.C. § 103(a) as being obvious in view of Cohen and Parisi.[4]

ANTICIPATION

Issue

The Examiner has rejected claim 41 under 35 U.S.C. § 102(b) as being anticipated by Cohen. The Examiner finds that Cohen discloses making a medical device that includes a reinforcing member comprising filaments by "treating at least the portion of the surface [of the filaments] … to provide a final surface area that is greater than the initial surface area, and creating the reinforcing member using the one or more metallic filaments and incorporating the member into a medical device" (Answer 3).

Appellant contends that the Examiner erred in finding Cohen to disclose the claim limitation of "treating at least the portion of the surface of the one or more metallic filaments to provide a final surface area that is greater than the initial surface area" (claim 41) because "Cohen does not teach an etching process that necessarily and inherently results in an increased surface area" (Appeal Br. 7).

The issue with respect to this rejection is: Has Appellant demonstrated that the Examiner erred in finding that Cohen discloses a medical device that is the product of treating at least a "portion of the surface of the one or more

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[3] Cohen, US 5,330,521, Jul. 19, 1994.
[4] Parisi et al., US 2001/0027310 A1, Oct. 4, 2001.

metallic filaments to provide a final surface area that is greater than the initial surface area," as recited in claim 41?

Findings of Fact

1. Cohen discloses "an implantable electrical lead" (Cohen, col. 3, ll. 16-17).

2. Cohen discloses that the "lead comprises a wire core formed into a helical coil ... ; a layer of an electrically conductive material ... ; [and] a biocompatible, electrically insulating sheath covering the helical coil" (*id.* at col. 3, ll. 17-25).

3. Cohen discloses the following:

> Any electrically insulating oxides or films that may be present on the surface of the wire core **22** must be substantially removed before forming the electrically conductive layer **24** on the wire core **22** in order to provide good electrical continuity between the wire core and the electrically conductive layer **24**. An example of one technique for removing such oxides or films from the surface of the wire core **22** involves etching the wire core with an acid in an inert atmosphere, such as argon or nitrogen, before forming the conductive material thereon. The removal of such films and oxides also promotes mechanical adhesion between the conductive layer **24** and the surface of the wire core **22**.

(*Id.* at col. 6, ll. 52-65.)

4. Cohen discloses that "the lead **40** may be constructed, as shown by way of example in FIG. **4**, whereby the wire core **42** has a relatively large diameter for the proximal 2/3 of the overall length, 'L', of the lead and a smaller diameter for the distal 1/3 of the length of the lead" (*id.* at col. 9, ll. 18-23).

5. Figure 4 of Cohen is shown below:

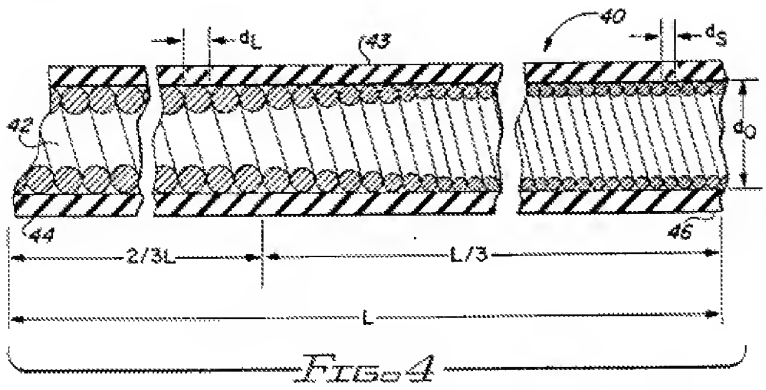

Fig. 4

Figure 4 shows "a cross-sectional view of an electrical lead having a wire core with a varying cross-sectional area" (*id.* at col. 4, ll. 16-17).

6. Cohen discloses that a

> wire core having a varied diameter ... may be manufactured, for example, by feeding a wire of uniform diameter through an etchant, such as an aqua regia, at varying speed. A length of wire having a smaller diameter may be manufactured by feeding the wire through the etchant at relatively slow speed so that the wire core is exposed to the etchant a sufficient time for the etchant to chemically etch the wire core to a predetermined diameter. The length of wire having the cross-sectional area which tapers from the smaller diameter to the larger diameter may be obtained by gradually increasing the speed of the wire through the etchant, thereby producing a wire core having a tapered diameter with no discontinuities.

(*Id.* at col. 9, ll. 29-42.)

Principles of Law

> [E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself.

> The patentability of a product does not depend on its method of production. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.

In re Thorpe, 777 F.2d 695, 697 (Fed. Cir. 1985) (citations omitted).

Analysis

Claim 41 is directed to a medical device including a reinforcing member made from a metallic filament, at least a portion of the filament's surface having been treated to provide a final surface area that is greater than the initial surface area.

Appellant does not dispute that Cohen discloses a medical device having a reinforcing member made of a metallic filament. However, Appellant contends that the metallic filaments in Cohen's device do not have a surface portion that is treated to provide a final surface area that is greater than the initial surface area of the treated portion.

The Examiner reasons that the claim only "necessitate[s] a surface that is not completely smooth, not specifically whether this surface is achieved by increasing the surface area of the reinforced metallic member or decreasing the surface area of the reinforced metallic member since there is no structural difference in the resultant product" (Answer 6). The Examiner finds that Cohen's product would have the required structure because it "is etched by an acid chemical etching process ... [that] operates by molecular 'pitting' i.e. removed pieces of material from the surface of the material" (Ans. 6). The Examiner notes that "Applicant's own specification ...

discloses surface treatments of which one can be a chemical etching process" (*id.*).

Appellant contends that "Cohen does not teach an etching process that necessarily and inherently results in an increased surface area" (Appeal Br. 7) and thus contends that Cohen does not disclose the claim limitation of "treating at least the portion of the surface of the one or more metallic filaments to provide a final surface area that is greater than the initial surface area" (*id.*).

Appellant's arguments are not persuasive. Claim 41 recites a product that results from treating a "*portion* of the surface of the one or more metallic filaments to provide a final surface area that is greater than the initial surface area." Cohen discloses a wire (i.e., a metallic filament) that is etched with acid by drawing the wire through the acid at gradually increasing speeds to produce a wire with a tapered diameter (i.e., smaller diameter resulting from long exposure to acid tapering to larger diameter resulting from short exposure to acid).

Based on the process described by Cohen, it is reasonable to conclude that, toward the end of the etching process, a *portion* of the wire will be exposed to the acid etchant for a period of time that will result in that *portion* of wire having a surface that is pitted but not smaller overall in diameter, and thus will have a surface area that is greater than the initial surface area. Further, as recognized by the Examiner, the structure implied by the claimed process step is a metallic filament with a roughened surface and for the reasons discussed above Cohen provides a reasonable basis on which to

conclude that the disclosed metallic filament would have a roughened surface.

Conclusions of Law

Appellant has not demonstrated that the Examiner erred in finding that Cohen discloses a medical device that is the product of treating at least a "portion of the surface of the one or more metallic filaments to provide a final surface area that is greater than the initial surface area," as recited in claim 41.

OBVIOUSNESS

The Examiner has rejected claims 41-56 under 35 U.S.C. § 103(a) as being obvious in view of Cohen and Parisi (Answer 4-5).

Appellant relies on the same argument with respect to this rejection as he relied on with respect to the rejection of claim 41 for anticipation (Appeal Br. 9). For the reasons discussed above, Appellant's argument is not persuasive. We affirm the rejection of claim 41 as obvious in view of Cohen and Parisi. Anticipation is the epitome of obviousness. *See, e.g., In re Fracalossi*, 681 F.2d 792, 794 (CCPA 1982). Claims 42-56 fall with claim 41 because they were not argued separately. 37 C.F.R. § 41.37(c)(1)(vii).

SUMMARY

We affirm the rejection of claim 41 under 35 U.S.C. § 102(b) as being anticipated by Cohen. We also affirm the rejection of claims 41-56 under 35 U.S.C. § 103(a) as being obvious in view of Cohen and Parisi.

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

cdc

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